

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1 – 4. (Canceled)

5. (Currently Amended) A method for integrating applications hosted at different enterprises separated by at least ~~one firewall~~ two firewalls, the method comprising steps of:

receiving high level business data from a source application program at an agent device ~~operating as a spoke in a first hub and spoke integration system~~, wherein the agent device comprises an encryption engine;

using the encryption engine for encrypting the high level business data using Hyper-Text Transport Protocol Secure (HTTPS) to provide encrypted business data;

transmitting the encrypted business data to a first MQ server, said first MQ server located between an application server and a first demilitarized zone firewall;

using the ~~agent device~~ first MQ server for encoding the ~~high level encrypted~~ business data according to a message queuing protocol to provide an encrypted MQ message ~~to an MQ server operating as a hub in a second hub and spoke integration system separated from the first hub and spoke integration system by the Internet;~~

~~using an encryption engine integrated into the agent device for encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message;~~

transmitting the encrypted MQ message to a first queue manager within a first MQ server;

using the first queue manager within the first MQ server for storing the encrypted MQ message for delivery to a second ~~the~~ MQ server until said second MQ server is ready; and upon confirmation that the second MQ server is ready, transmitting, via the Internet using

HTTPS and MQ Series Internet Passthrough (MQ IPT), the encrypted MQ message ~~to a~~ from the first MQ server to said second the MQ server without aid of a web browser;

using a queue manager at the second ~~hub and spoke integration system~~ MQ server for ~~decrypting~~ receiving the encrypted MQ message ~~to produce a decrypted MQ message;~~

using ~~a second agent device~~ the second MQ server for decoding the ~~decrypted encoded~~ MQ message to recover the high-level encrypted business data;

using an encryption engine integrated into the second MQ server device for decrypting the encrypted business data using Hyper-Text Transport Protocol Secure (HTTPS), wherein said decrypting results in high level business data;

forwarding the high level business data from the second MQ server to an application server;

wherein the ~~high-level business data encrypted MQ message~~ encrypted MQ message passes through a first demilitarized zone ~~in the first hub and spoke integration system~~ and a second demilitarized zone ~~in the second hub and spoke integration system~~ transit from the first MQ server to the second in order to reach the MQ server;

wherein the first and second demilitarized zones each comprise at least one firewall separating its resident queue manager from the Internet;

wherein the application server is configured at hub of a hub-and-spoke middleware messaging system;

wherein the first agent device and the second agent device are configured as spokes in the messaging system.

using the MQ server for processing of the high-level business data when received.

6 -7. (Canceled)

8. (Previously presented) The method of claim 5 further comprising maintaining a record of messages received from the source application program.

9. (Previously presented) The method of claim 8 wherein the record of the messages received from the source application program comprises information on a number of messages received.

10. (Previously presented) The method of claim 8 wherein the record of the messages received from the source application program comprises information on type of messages received.

11-17 (canceled)

18. (Currently Amended) A method for transmitting high-level business data in real time to one or more enterprises, the method comprising:

receiving via the Internet and through firewalls, at a first agent ~~acting as a spoke in a first hub and spoke integration system~~, from an application, a ~~encrypted MQ~~ message comprising high level business data from a source application and a request to process data by ~~a~~ an application server acting as a hub in a second hub and spoke integration system;

relaying ~~the encrypted MQ message~~ the message from said first agent to a first queue manager located within a first MQ server, for ~~decoding~~ encoding the high level business data into an MQ message using a message queuing protocol located at said first queue manager, wherein said first MQ server is located between an application server and a first demilitarized zone firewall;

using [[a]] the first queue manager located within the first MQ server for ~~decrypting~~ encrypting the MQ message using a Hyper-Text Transport Protocol Secure (HTTPS) security protocol;

storing the ~~decrypted~~ encrypted MQ message; and

transmitting, via the Internet using HTTPS, and MQSeries Internet Passthrough (MQ IPT), and through the firewalls at each end of the Internet, the encrypted MQ message to a first queue manager for retransmission at a time when the network is suitable for transporting the message to the server.

19. (Previously presented) The method of claim 18, wherein the high-level data comprises customer information.

20-22. (Canceled)

23. (Currently Amended) A system for integrating applications in different enterprises separated by at least one firewall, the system comprising:

- a first demilitarized zone comprising at least one firewall separating a first local area network from the Internet;

- a second demilitarized zone comprising at least one firewall separating a second local area network from the Internet;

- wherein each local area network comprises:

- a memory device comprising a software agent configured for receiving high level business data from a source application;

- an encryption engine integrated into an agent device for encrypting ~~the MQ message~~ high level business data using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message;

- transmitting the encrypted business data to a first MQ server, said first MQ server located between an application server and a first demilitarized zone firewall;

- a queue manager within the first MQ server for receiving the encrypted high level business data and for storing the high level business data for delivery to a target server with instructions to transmit the data when the target server is ready to process the data;

- using the first MQ server for encoding the encrypted business data according to a message queuing protocol to provide an encrypted MQ message, and;

- an I/O interface for transmitting, via the Internet using HTTP, and MQSeries Internet Passthrough (MQ IPT), the encrypted high level business data to the target server acting as a hub in another hub and spoke integration system; and running the target application, wherein the high level business data and the target server are separated by the first and second demilitarized zones.

24. (Previously presented) The system of claim 23, further comprising a protocol for telling a sender to stop sending messages so that it can perform bookkeeping functions.

25. (Previously presented) The system of claim 23, wherein the encryption engine comprises a secure sockets layer protocol.

26. (Currently Amended) A non-transitory computer readable storage medium comprising code that, when executed, causes a computer to:

receiving at an agent ~~acting as a spoke in a first hub and spoke integration system~~, high level business data from a source application program;

using an encryption engine integrated into the agent for ~~encoding~~ encrypting the high level business data using Hyper-Text Transport Protocol Secure (HTTPS) to provide encrypted business data according to a message queuing protocol to provide an MQ message;

~~encrypting the MQ message using Hyper-Text Transport Protocol Secure (HTTPS) to provide an encrypted MQ message; and~~

transmitting the encrypted business data to a first MQ server, said first MQ server located between an application server and a first demilitarized zone firewall;

using the first MQ server for encoding the encrypted business data according to a message queuing protocol to provide an encrypted MQ message, and;

transmitting, via the Internet using HTTP, and MQSeries Internet Passthrough, and through the firewalls at each end of the Internet, the encrypted MQ message to an application server, acting as a hub in a ~~second~~ hub and spoke integration system and running a destination application program for processing of the high level business data;

wherein the high level business data passes through a first demilitarized zone in the first hub and spoke integration system and a second demilitarized zone in the second hub and spoke integration system in order to reach the application server;

wherein the first and second demilitarized zones each comprise at least one firewall

separating its server from the Internet.

27. (Previously presented) The non-transitory computer readable storage medium of claim 26 further comprising an instruction for storing the encrypted MQ message in a queue manager prior to transmitting the encrypted MQ message.

28. (Previously presented) The non-transitory computer readable storage medium of claim 26 further comprising an instruction for sending a message to the source application program instructing the source application program to stop sending data.

29. (Previously presented) The non-transitory computer readable storage medium of claim 26 further comprising an instruction for maintaining a record of the messages received from the source application program.

30. (Previously presented) The non-transitory computer readable storage medium of claim 26 wherein the record of the messages received from the source application program comprises information on the number of messages received.